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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,861	09/17/2003	Hisashi Tsukamoto	Q137-US2	8461

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EXAMINER	
LEE, CYNTHIA K	

ART UNIT	PAPER NUMBER
1795	

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06/06/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/666,861	TSUKAMOTO ET AL.	
	Examiner	Art Unit	
	CYNTHIA LEE	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 June 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9 and 66-71* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9 and 66-71* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Amendment

This Office Action is responsive to the Pre-Brief Appeal Conference request filed on 6/14/2007. Claims 1-9 and 66-71 are pending. Claims 1-9 and 66-71 are non-finally rejected for reasons stated herein below.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-3, 7-9, 66, and 71 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 55 and 72-84 of copending Application No. 10/666790. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 55 and 72-84 of the copending application contain all the limitations of claims of the instant application. Claims 1-3, 7-9, 66, and 71 of the instant application therefore are not

patently distinct from the copending claim and as such is unpatentable for obvious-type double patenting.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 6, 66-68, and 71 are rejected under 35 U.S.C. 102(b) as being anticipated by McHenry (US 3510353).

Refer to the Figure of McHenry. McHenry discloses a method of constructing an electric storage battery, comprising connecting a first end of a first electrode strip(17) to a pin (14); positioning a mandrel (tube 12 and the plastic tubing 13) on the pin; winding the first electrode strip together with a second electrode strip so as to form a spiral roll having at least a portion of the pin within the spiral roll, the spiral roll being formed after positioning the mandrel on the pin (2:31-36). The electrodes are rolled around the pin and the mandril (2:35-36).

Regarding claim 3, the plastic tubing 13 is in physical contact with the pin 14, and thus the mandrel is in electrical communication with the pin.

Regarding claim 66, the tube 12 is crimped at several positions along its length to effect the seal between the wire and the tube 12 (2:20-22).

Regarding claims 67 and 68, refer to the pin (14) and a mandrel (12 and 13) in the figure.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over McHenry (US 3510353) as applied to claim 1, in view of Coibion (US 4053687).

McHenry discloses all the elements of claim 1 and are incorporated herein. McHenry discloses that the electrode strip is connected to the pin through tab 18, but does not disclose that the tab is welded to the pin 14. Coibion teaches of connecting the electrode border 8 (or tab) to the metallic cover 5 by welding. The metallic cover is also the positive terminal of the cell. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the tab out of metallic material and attach the electrode of McHenry to the pin through the tab 18 by welding, as taught by Coibion, for the benefit of providing good electrical connection between the electrode and the pin. Making the tab out of a metallic material would ensure good electrical connection to the pin, which is the positive terminal.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over McHenry (US 3510353) as applied to claim 1, in view of Chang (US 4863815).

McHenry discloses all the elements of claim 1 and are incorporated herein. McHenry discloses that the pin extends through the insulator 15, but does not disclose that the pin extends through the case. Chang teaches an electrically conductive terminal pin extending through battery lid (see 6 in fig. 1). It would have been obvious to one of ordinary skill in the art to extend the terminal pin through the end cap of the battery of McHenry, as taught by Chang, for the benefit of extracting the current of the battery directly from the current collector instead of through the positive terminal.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over McHenry (US 3510353) as applied to claim 1, in view of Taylor (US 6090503).

McHenry discloses all the elements of claim 1. McHenry does not teach that the pin includes an alloy of Ptlr. Taylor teaches that a battery terminal is made of Ptlr (3:30). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the pin of McHenry with Ptlr, as taught by Taylor, because it has been held by the court that the selection of a known material based on its suitability for its intended use is prima facie obvious. Sinclair & Carroll Co. v. Interchemical Corp., 325 U.S. 327, 65 USPQ 297 (1945). Se MPEP 2144.07

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over McHenry (US 3510353) as applied to claim 1, in view of Spillman (US 5631102).

McHenry discloses all the elements of claim 1. McHenry teaches a mandrel 12 does not teach that the mandrel includes titanium. Spillman teaches a terminal pin comprising titanium (6:12). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the mandrel of McHenry of titanium, as taught by Spillman, since it has been held by the court that the selection of a known material based on its suitability for its intended use is *prima facie* obvious. Sinclair & Carroll Co. v. Interchemical Corp., 325 U.S. 327, 65 USPQ 297 (1945). Se MPEP 2144.07.

Claims 1, 7, 69, and 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gartstein (US 2002/0001745) in view of Klein (US 4476624)

Gartstein discloses a battery comprising a pin and electrode assembly wound around the pin. The first electrode is coupled to the pin 26 via 33. Refer to fig. 3.

Gartstein does not disclose a mandrel fitted around the pin. Klein teaches a novel mandrel comprised of an elongated longitudinally deformed metal strip and a compression element adapted to fit within the deformity of the metal strip. Preferably the metal strip is of a uniform enclosing configuration such as of a "U" or "C" shaped cross section and the compression element is preferably a solid plastic rod (applicant'

claim 69). During the construction of the cell an electrode such as lithium with separator elements on both sides thereof is placed within the deformity with the compression element compressing and fixedly positioning the electrode into the deformity of the mandrel. The compression element is then locked into position such as by crimping the mandrel therearound to positively hold the electrode in place during subsequent winding (applicant's claim 70). With an anode metal electrode such as of lithium, a percut opening in the separator element adjacent the mandrel permits contact and cold welding between the anode metal and the mandrel during the compression step. Refer to (1:65-2:5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the mandrel and pin configuration of Klein in the battery of Gartstein, as taught by Klein (1:36-37), for the benefit of tightly gripping the electrode during the winding of the battery.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Lee whose telephone number is 571-272-8699. The examiner can normally be reached on Monday-Friday 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ckl

Cynthia Lee

Patent Examiner

/PATRICK RYAN/

Supervisory Patent Examiner, Art Unit 1795